

Exhibit A
CURRICULUM VITAE

DAVID B. WEINER

Home Address: 717 Beacom Lane
Merion Station, PA 19066
(215) 668-4858

Status: Married
3 Children

Office Address: University of Pennsylvania
505A BRB-1
422 Curie Drive
Philadelphia, PA 19104
(215) 349-8365

Social Security Number: 092-48-1762

Education: 1974-1978 B.S. SUNY at Stony Brook, NY (Biology)
1981-1985 M.S. University of Cincinnati, Cincinnati, OH, Department of
Biology, Biology
1981-1986 Ph.D. University of Cincinnati, Cincinnati, OH, Developmental
Biology Graduate Program, College of Medicine

Postgraduate Training and Fellowship Appointments:
12/1/86-6/30/89 Immunology Research Fellow: Division Director, Mark I. Greene, M.D., Ph.D.,
FRCP, Division of Immunology, School of Medicine, University of Pennsylvania

Faculty Appointments:

7/1/89 Research Assistant Professor of Pathology and Laboratory Medicine, University of
Pennsylvania School of Medicine, Philadelphia, PA.
7/1/89 Research Assistant Professor of Pathology and Laboratory Medicine in Medicine,
University of Pennsylvania School of Medicine, Philadelphia, PA.
7/1/89 Wistar Institute Assistant Professor of Pathology and Laboratory Medicine,
University of Pennsylvania School of Medicine, Philadelphia, PA
7/1/90 Wistar Institute Assistant Professor of Medicine (secondary), University of
Pennsylvania School of Medicine, Philadelphia, PA.
7/1/93 Assistant Professor of Pathology and Laboratory Medicine, University of
Pennsylvania School of Medicine, Philadelphia, PA.
7/1/95 Associate Professor of Pathology and Laboratory Medicine, University of
Pennsylvania School of Medicine, Philadelphia, PA.

Awards, Honors, and Memberships in Honorary Societies:

1973-1978 Regents Scholarship Award
1974 Bay Ridge Medical Society Award for Excellence in Science
1976-1977 Lupus Foundation of Greater New York Biomedical Research Award
1982 Lions Club Service Award
1982-1983 Graduate Research Fellowship - Academic Year

1983	Weiman Summer Fellowship
1983-1984	Graduate Research Fellowship - Academic Year
1984	URC Summer Fellowship
1984	Sigma Xi Research Fellowship
1984-1985	President Biomedical Graduate Student Association.
1985	Sigma Xi Young Investigator Award
1985	URC Summer Fellowship
1991	1991 Rose Award Sponsor
1993	Rose Award Sponsor
1993	Phila. Business Award top 100 Philadelphians of 1993
1994	WHO AIDS Research Laboratory
1994	Maplethorpe Scholar

Membership in Professional Societies:

American Association for the Advancement of Science
International AIDS Society
American Society for Microbiology
Greater Philadelphia Economic Development Council
Pennsylvania Biotechnology Association
Ben Franklin Technology Council-Technology Council

Editorships Positions:

Senior Editor, DNA and Cell Biology
Section Editor, Viral Immunology
Editorial Board, Immunologic Research
Pennsylvania Biotechnology Association
Pennsylvania Bar Association- Special Section on Biomedical issues
Special Consultant- New York City Department of Consumer Affairs, AIDS Fraud Division

Training and Major Teaching and Clinical Responsibilities for the University of Pennsylvania.

Frederick Vivino, M.D.	1988-1989	Presbyterian Medical Cntr., Assistant Professor
Dan McCallus, Ph.D.	1988-1990	USDA- Philadelphia, Senior Staff Investigator
Michael Satre, Ph.D.	1990-1992	UC Davis, Assistant Professor
Min Kim, M.D.	1992 - 1993	Catholic University Medical College, Assistant Professor
Mr. David Levy	1989 - 1994	Harvard, Boston, Post Doctoral Fellow
Ms. Alice Sato	1990 - present	
Ms. Beth O'Donnell	1991 - present	
Bin Wang, Ph.D.	1991 - present	Dept. of Pathology and Laboratory Medicine University of Pennsylvania, Research Assistant Professor Research Assistant Professor Georgetown University
Vasanth Srikantan, D.V.M.	1991 - 1995	
Velpandi Ayyavoo, Ph.D.	1993 - present	
Brian MacDonald, M.D.	1992 - 1995	Clinical Director Bone disease Smith Kline Beecham
Michael Agadjanyan Ph.D.	1993 - present	
Laura Fernandez, M.D.	1992 - 1994	Staff Fellow- Thomas Jefferson University, Department of Rheumatology
Kenneth Ugen, Ph.D.	1990 - 1994	Assistant Professor

Department of Microbiology
Medicine, University of
South Florida

Student Committees

John Korostoff	1993	Ph.D.in Immunology
Sandy Saoff-Chair	1994	Ph.D in Immunology
Ahmed Faruke	1994	Ph.D. in Biochemistry

Present

Anne Maitlan-Chair	Candidate	Ph.D. In Immunology
Chih Chiang	Candidate	Ph.D. in Immunology

Undergraduate training

Mr. Sam Lee	1988 - 1990	Harvard- Dental school
Mr. Jonathon Pletcher	1988 - 1990	U. Pittsburg- Medical school
Mr. Brian Margerum	1988 - 1990	Temple- Medical school
Mr. Hugh Fogel	1988 - 1990	U. Michigan- Ph.D Prog. in Micro.
Ms. Hyonah Shin	1990 - 1991	Temple- Medical school
Ms. Tonya Villafena	1992 - 1993	Cornell- Ph.D. Prog. in Immunology
Mr. Yosef Refaeli	1992 - 1994	Harvard-Ph.D. Prog. in Immunology
Mr. Craig Delaval	1990 - 1992	University of Pennsylvania Medical School

Course Teaching:

Division of Rheumatology	1989 - present	M.D. Fellows Training lectures in molecular biology and Immunology
Department of Otolaryngology	1992- present	Surgical Fellows Lecture series in molecular Immunology.
Rheumatology Bridge course	1993-present	molecular biology/immunology
Immunology Medical School	1995-present	Co-instructor

Academic Committees at the University of Pennsylvania:

1989	Graduate Faculty, Immunology Program, University of Pennsylvania, Philadelphia, PA
1990	Graduate Faculty, Pharmacology Program, University of Pennsylvania, Philadelphia, PA
1993	COAP - Clinician Educator Track - Dept. of Pathology and Lab Medicine

Lectures by Invitation (1992 -1995):

1992	Research perspective Moore v. Regents of the University of California, Pennsylvania Bar Association, Harrisburg. January.
1992	Biotechnology Approaches to the Design of anti-HIV Therapeutic Reagents , Marion Merrill Dow, April
1992	The Structure of the HIV Envelope can be Approached through Homology with Immunoglobulin CDR Regions, Repligen Co., Cambridge MA. May
1992	New Animal Models for AIDS Vaccines, Rhone-Poulenc Rorer Central Research, Collegeville, PA, August.

- 1992 Vaccination by Recombinant Retroviral Vaccines, International Biotechnology USA Conferences Inc, South Natick, MA. September.
- 1992 The Technology of Vaccine design against the Human Immunodeficiency Virus, The Immune Response Corporation, San Diego Ca. November.
- 1992 Vaccine development against Human Retroviruses. Third International Symposium on Catalytic RNA's (Ribozymes) and Targeted Gene Therapy for the treatment of HIV Infection (NIAID-DAIDS), San Diego Ca. December.
- 1992 Genetic Innoculation generates protective Immune responses in vivo. Vical, San Diego, CA. December.
- 1993 Conference Co-Organizer-Bioeast 1993. January
- 1993 Chair-Genetic Vaccination-Genetic Vaccine development, a new approach to developing protective anti-HIV immune responses-Bioeast, Washington DC. January.
- 1993 HIV-cell Interactions and Anti-HIV Immune Responses, La Jolla Institute for Allergy and Immunology, La Jolla, CA. March.
- 1993 HIV Genes, Viral Tropism and Cell Entry, DNX, Princeton, N.J. March.
- 1993 An anti-oncogene is encoded in the HIV genome, Interplex, NYC. March.
- 1993 Chair: Genetic Vaccination Implications of the Technology, Atlanta ASM. May
- 1993 Chair: HIV Regulatory Genes and HIV Pathogenesis, Atlanta ASM. May
- 1993 Genetic Vaccination Induces Protective anti-HIV Immune Responses In Vivo. NJ. IGI. June
- 1993 Genetic Vaccination against HIV-1. Washington DC, NIAID-DAIDS-NCDDG. July.
- 1993 Vpr Induction of Cell Differentiation. Washington, DC, NIAID-DAIDS-NCDDG. July.
- 1993 Induction of Humoral and Cellular anti-HIV Immune Responses Through Genetic Inoculation. Boston - Science Annual Meeting on New Technologies. August.
- 1993 Pathogenesis of HIV Infection is controlled by a Regulatory Gene. CUNY Dept. Microbiology New York, September.
- 1993 Genetic Innoculation Induces CTL Responses against HIV. International Biotechnology Conference. Washington, D.C. October.
- 1993 Vaccination against Human Retroviruses using Plasmid Vectors, ICAAC Symposium. New Orleans. October.
- 1993 Infectivity and Pathogenesis of HIV. Immune Response Institute. Princeton, N.J., October
- 1993 Induction of Protective Immunity against HIV-1 by Genetic Inoculation. International European AIDS EVA conference. Munich, Germany. November.

- 1994 CHAIR: Facilitated DNA Inoculation Produces Specific Gene Expression In Vivo which Induces Specific Immune Responses in the Absence of Replicating Vector Systems. IBC Fourth Conference on Gene Therapy. Washington, DC. November.
- 1994 DNA Inoculation can Induce Protective Immunity in Nonhuman Primates: Advances in Gene Therapy. CHI, Washington, D.C. December.
- 1995 Conference organizer & Chair DNA Inoculation Induces Broad Anti-HIV Immunity In Vivo. Gene Therapy & Nucleic Acid Vaccine Strategies. Bethesda, MD. February
- 1995 Chair, Direct DNA Immunization for the Production of Anti-HIV Immune Responses *in vivo*. Second International Conference on Engineered Vaccines for Cancer and AIDS. San Francisco, California. March.
- 1995 Results with Genetic Immunization. Third Annual Conference on Vaccines: New Technologies & Applications. Alexandria, VA. March.
- 1995 Nucleic Acid Vaccination : Studies in the HIV-1 Model. Southwestern Medical Center. U of Texas at Dallas. May.
- 1995 DNA Vaccines for HIV-1; Progress Toward Vaccine Development Fourth Annual NCDDG/SPIRAT Meeting/DAIDS/NAIAD, Bethesda MD. July.

Bibliography:

Receptor Biology and Immunology

1. Hyman, J., Beekman, J., Weiner, D.B., and Sadove, S. Beached whale responds to rest and treatment. Norden News 56: 32. 1981
2. Mathews, E.A., Keller, S.J., and Weiner, D.B. A method to collect and culture skin biopsies from free-ranging gray whales (*Eschrichtus robustus*). Marine Mammol. 4: 196-202. 1988.
3. Weiner, D.B., Watson, S.R., Babcock, G.F., and Keller, S.J. Expression of human T cell surface antigens in interspecies hybridomas. Cell. Immunol. 100(1): 197-209. 1986.
4. Maguire, H.C., Jr., Weiner, D.B., Sibinga, E., and Greene, M.I. The neu oncogene in human neuroblastoma. Adv. Neuroblastoma Research. 2: 165-173. 1988.
5. Weiner, D.B., Liu, J., Hanna, N., Bluestone, J., Coligan, J., Williams, W.V., and Greene, M.I. CD3 - associated heterodimeric polypeptides on suppressor hybridomas define biologically active inhibitory cells. Proceeding of National Academy of Sciences. USA 85: 6077-6081. 1988.
6. Kokai, Y., Dobashi, K., Weiner, D.B., Meyers, J., Nowell, P.C., and Greene, M.I. Novel phosphorylation process induced by epidermal growth factor alters the oncogenic and cellular neu gene products. Proceeding of National Academy of Sciences. USA 85: 5389. 1988.
7. Williams, W.V., Guy, H.R., Cohen, J.A., Weiner, D.B., and Greene, M.I. Molecular and immunologic analyses of a functional internal image formed by an anti-receptor antibody. Annales de l' Institut Pasteur 139: 659-675. 1988.

8. Williams, W.V., Weiner, D.B., Wadsworth, S., and Greene, M.I. The antigen-major histocompatibility complex T-cell receptor interaction: A structural analysis. *Immunol. Res.* 7: 339-350. 1988.
9. Weiner, D.B., Williams, W.V., Siegel, R.M., Jerrold-Jones, S., and Greene, M.I. Molecular characterization of suppressor T cells: Biology of transfusion induced immunosuppression. *Transplan. Proc.* 20: 1151-1153. 1988.
10. Weiner, D.B., Siegel, R.M., Williams, W.V., and Greene, M.I. Lymphocytes suppressive network and soluble effector mechanism. *Clinical Immunology. Newsletter* 9: 184-188. 1988.
11. Williams, W.V., Moss, D.A., Weiner, D.B., Cohen, J.A., Guy, H.R., and Greene, M.I. Anti-idiotypic modeled peptides with biologic activity. *Adv. Immunopharmacol.* 4: 119-126. 1988.
12. Romano, C., Williams, W.V., Fischberg, D.J., Cocero, N., Weiner, D.B., Greene, M.I., and Molinoff, P.B. Subtype selective immunoprecipitation of the B₂-adrenergic receptor. *Journal of Neurochemistry.* 53: 362-369. 1989.
13. Williams, W.V., Moss, D.A., Kieber-Emmons, T., Cohen, J.A., Myers, J.N., Weiner, D.B., and Greene, M.I. Development of biologically active peptides based on antibody structure. *Proc. National Academy of Sciences. USA* 86: 5537-5541. 1989.
14. Cohen, J.C., Weiner, D.B., More, K.F., Kokai, Y., Williams, W.V., Maguire, H.C., Livolsi, V.A., and Greene, M.I. Expression pattern of the neu gene-encoded growth factor receptor protein (p185^{neu}) in normal and transformed epithelial tissues of the digestive tract. *Oncogene* 4: 67-73. 1989.
15. Williams, W.V., Guy, H.R., Cohen, J.A., Weiner, D.B., and Greene, M.I. Structure and regulation of internal image idiotypes. *Chem. Immunol.* 48: 185-208. 1989.
16. Williams, W.V., London, S.D., Weiner, D.B., Wadsworth, S., Berzofsky, J.A., Robey, F., Rubin, D.H., and Greene, M.I. Immune response to a molecularly defined internal image idiotypic. *J. Immunol.* 142: 4392-4400. 1989.
17. Weiner, D.B., Kokai, Y., Wada, T., Cohen, J.A., Williams, W.V., and Greene, M.I. Linkage of tyrosine kinase activity with transforming ability of the p185^{neu} oncoprotein. *Oncogene* 4: 100-109. 1989.
18. Maguire, H., Jaworsky, C., Hellman, M.E., Cohen, J.C., Weiner, D.B., and Greene, M.I. The distribution of the neu (c-ErbB-2) protein in human skin. *J. Invest. Dermatol.* 92: 786-790. 1989.
19. Williams, W.V., Weiner, D.B., Rubin, D.H., and Greene, M.I. Shared antigenic structure defines of the neutralizing epitope of the reovirus type 3⁺. *Therapeutic Advances in Clinical Immunology : Immunology and Allergy Clinics of North America* 8: 169-172. 1989.
20. Weiner, D.B., Liu, J., Cohen, J., Williams, W.V., and Greene, M.I. The neu oncogene: A point mutation mimics ligand induction of receptor aggregation. *Nature* 339: 230-231. 1989.
21. Williams, W.V., Guy, H.R., Weiner, D.B., and Greene, M.I. Three-dimensional structure of a functional internal image. *Viral Immunol.* 2: 239-246. 1989.

22. Dobashi, K., Weiner, D.B., and Greene, M.I. Differential regulation of oncogenic and cellular p185 by Serine/Threonine kinases. *DNA* 8: 723-732. 1989.
23. Williams, W.V., Weiner, D.B., Cohen, J.C., and Greene, M.I. Development and use of receptor binding peptides derived from antireceptor antibodies. *Biotechnology* 7: 471-475. 1989.
23. Williams, W.V., Weiner, D.B., and Greene, M.I. Molecular analysis of primary T cell involvement in the idiotypic network utilizing immunoglobulin-derived peptides. *The Year in Immunol.* 6: 152-161. 1990.
24. Kelsten, M.L., Berger, M.S., Maguire, Jr., H.C., Chianese, D.A., Hellman, M.E., Weiner, D.B., and Greene, M.I. The analysis of cerbB-2 protein expression in conjunction with DNA content using multiparameter flow cytometry. *Cytometry* 11: 522-532. 1990.
25. Weiner, D.B., Nordberg, J., Robinson, R., Nowell, P.C., Gazdar, A., Greene, M.I., Williams, W.V., Cohen, J.A., Kern, J.A., Expression of the neu gene encoded protein (p185^{neu}) in human non-small cell carcinomas of the lung. *Cancer Res.* 50: 421-425. 1990.
26. Lodato, R.F., Magurie, H.C., Jr., Greene, M.I., Weiner, D.B., and LiVolsi, V.A. Immunological in situ and atypical ductal hyperplasia of the breast. *Modern Pathol.* 3: 449-454. 1990.
27. Williams, W.V., Weiner, D.B., Kieber-Emmons, T., and Greene, M.I. Antibody geometry and form: Three-dimensional relationships between anti-idiotypic antibodies and external antigens. *Trends in Biotechnology.* 8: 256-263. 1990.
28. Kern, J.A., Schwartz, D., Nordberg, J.A., Weiner, D.B., Greene, M.I., Torney, L., and Robinson, R.A. p185^{neu} expression in human non-small cell lung carcinoma: Clinopathologic correlations. *Cancer Res.* 50: 5184-5191. 1990.
29. Barnathan, E.S., Kuo, A., Kariko, K., Rosenfeld, L., Murray, S., Behrendt, N., Ronne, E., Weiner, D.B., Henkin, J., and Cincas, D.B. Characterization of human endothelial cell receptor protein and mRNA for urokinase-type plasminogen activator. *Blood* 76: 1795-1806. 1990.
30. Williams, W.V., Kieber-Emmons, T., Von Feldt, J., Greene, M.I., and Weiner, D.B. Design of bioactive peptides based on antibody hypervariable region structures: Development of conformationally constrained peptides with enhanced affinity. *J. Biol. Chem.* 266: 5182-5190. 1991.
31. Kieber-Emmons, T., Ugen, K.E., Merva, M.J., Whalley, A., Morrow, W.J.W., Williams, W.V., Nara, P.L., and Weiner, D.B. Engineered peptides that mimic HIV-1 neutralizing envelope structures. *Vaccines '91*: 165-173. 1991.
32. Modiano, J.F., Kokai, Y., Weiner, D.B., Pykett, M.J., Nowell, P.C., and Lyttle, C.R. Progesterone augments proliferation induced by epidermal growth factor in a feline mammary adenocarcinoma cell line. *J. Cell. Biochem.* 45: 196-206. 1991.
33. Williams, W.V., Weiner, D.B., Borofsky, M.A., Rubin, D.H., Yui, K., and Greene, M.I. Modulations of T cell responses with MHC-derived peptides. *Immun. Res.* 11, 11-23. 1991.
34. Williams, T.M., Weiner, D.B., Greene, M.I., and Maguire, H.C. Expression of c-erb-B2 in human pancreatic adenocarcinomas. *Pathobiology*: 59:46-52. 1991.

35. Williams, W.V., VonFeldt, J.M., Ramunajam, T., and Weiner, D.B. Tyrosine kinase signal transduction in rheumatoid synovitis. *Seminars in Arthritis and Rheumatism*, 21:317-329. 1992.
36. Borofsky, M.A., Zurier, R.B., Weiner, D.B., and Williams, W.V. Effects of polyunsaturated fatty acids on interleukin 2-dependent T cell growth. *Immunological Research* 11:154-164. 1992.
37. Lee, A.H., Ramanujam, T., Ware, P., Edelstein, P.H., Brooks, J.J., Freundlich, B., Schumacher, R., Zurier, R.B., Weiner, D.B., and Williams, W.V. Molecular diagnosis of ureaplasma urealyticum septic arthritis in a hypogammaglobulinemic man. *Arthritis and Rheumatism* 35:443-448. 1992.
38. Williams, W.V., Callegari, P., Freundlich, B., Keenan, G., Eldridge, D., Shin, H., Krietman, M., McCallus, and Weiner, D.B. Molecular diagnosis of lyme borreliosis. Nested PCR exhibits enhanced sensitivity for detection of borrelia burgdorferi infection. *DNA and Cell Biology* 3:207-213. 1992.
39. Williams, W.V., Fang, Q., Demarco, D., VonFeldt, J., Zurier, R.B., and Weiner, D.B. Restricted heterogeneity of T cell receptor transcripts in rheumatoid synovium. *Journal of Clinical Investigation* 90:326-333. 1992.
40. Williams, W.V., Sato, A., Rossman, M., Fang, Q., and Weiner, D.B. Semi-random DNA amplification utilizing the polymerase chain reaction-application to the analysis of antigen receptor variable regions. *DNA and Cell Biology* 11:707-720. 1992.
41. Kern, J.A., Robinson, R.A., Gazdar, A., Torney, L., and Weiner, D.B. Mechanisms of p185HER2 expression in human non-small cell lung cancer cell lines. *Amer J. of Resp Cell & Mol Bio* 6:359-363. 1992.
42. Athreya, B.H., Pletcher, J., Zulian, F., Weiner, D.B., Williams, W.V., Subset-Specific Effects of Sex Hormones and Pituitary Goadotropins on Human Lymphocyte Proliferation *in Vitro*. *Clinical Immunology & Immunopathology* 66:3, 201-211. 1993
43. Von Feldt, J.M., Kieber-Emmons, T., Weiner, D.B., Ugen, K.E., Weiner, D.B., Ugen, K.E., Williams, W.V., Molecular structure and GM-CSF, *DNA and Cell Biology* 11:183-191. 1992
44. Goddard, D.H., Grossman, S.L., Williams, W.V., Weiner, D.B., Gross, J.L., Eidsvoog, K., Herblin, W.F., Dasch, J.R. Regulation of synovial cell growth: Co-expression of transforming growth factor- β and basic fibroblast growth factor by cultured synovial cells. *Arthritis and Rheumatism*. 35-11: 1296-1303. 1993. 1993.
45. Williams, V.W., Kieber-Emmons, T., Fang, Q., Von Feldt, J. Wang, Bin, Ramanujam, T., Weiner, D.B., Conserved Motifs in Rheumatoid Arthritis Synovial Tissue T Cell Receptor Beta Chains. *DNA and Cell*. 12, 425-434. 1993
46. Athreya, B.H., Francesco, Z., Godillot, A.P., Weiner, D.B., Williams, W.V., Prolactin Receptor Levels on Lymphocytes Vary with Menstrual Cycle in Women. *Immunological Research*. 62:32-42. 1993
47. Kern, J.A., Weiner, D.B., Gazdar, A., Shepard, H.M., Fendley, B., Inhibition of Human Lung Cancer Cell Line Growth by an Anti-p185 HER2 Antibody. *American J. of Respiratory Cell & Molecular Biology*. 9: p448-454. 1994.

48. Kern, J.A., Siebos, R.J., Top, B., Rodenhuis, S., Lager, D., Robinson, R.A., Weiner, D.B., C-erbB-2 Expression and Codon 12 K-ras Mutations Both Predict Shortened Survival of Patients with Pulmonary Adenocarcinomas. *J. Clin. Invest.* **V93**: 516-520. 1994
49. Zwillich, S., Fang, Q., Kieber-Emmons, T., VonFeldt, J., Monos, D., Ramanujam, T., Wang, B., Weiner, D.B., Williams, W.V., V Alpha Gene Usage in Rheumatoid Compared with Osteoarthritic Synovial Tissue T Cells. *DNA and Cell Biology.* **13:9**. 923-931. 1994
51. Williams, W.V., Fang, Q., Von Feldt, J.M., Boyer, J.D., Luchi, M., Wang, B., Weiner, D.B. Immunotherapeutic Strategies Targeting Rheumatoid Synovial T-Cell Receptors by DNA Inoculation. *Immunol Resh.* **145-153**. 1994
52. VonFeldt, J.M., Fish, S., Rosenbaum, H., Kieber-Emmons, T., Williams, R.M., Khan, S.A., Weiner, D.B., Williams, W.V., Anti-Peptide Antibody Analysis of GM-CSF Active Sites. *In Press. Peptide Research.* 1995
53. Williams, W.V., Rook, A.H., Freundlich, B.F., Fang, Q., Shaw, E., Lessin, Weiner, D.B., T Cell Receptors in Scleroderma Skin. *In Press, Proceedings N.Y. Academy of Sciences.* 1995.
54. Monfardini, Cristina, Kieber-Emmons, T., Von Feldt, J., O'Malley, B., Rosenbaum, H., Godillot, A. P., Kaushnasky, K., Brown, C.B., Voet, D., McCallus, D., Weiner, D.B., and Williams, V.W., Recombinant Antibodies in Bioactive Peptide Design, *J. Biological Chemistry*, **270**, p6628-6638.

Molecular Virology

1. Weiner, D.B., Girard, K., Williams, W.V., McPhillips, T., and Rubin, D.H. Reovirus type 1 and type 3 differ in their binding to isolated intestinal epithelial cells. *Microbial. Pathogen.* **5**: 29-40. 1988.
2. Williams, W.V., Guy, H.R., Rubin, D.H., Robey, F., Myers, J.N., Kieber-Emmons, T., Weiner, D.B., and Greene, M.I. Sequence of the cell attachment sites of reovirus type 3 and its anti-idiotypic/anti-receptor antibody: Modeling of their three-dimensional structures. *Proceeding of National Academy of Sciences. Sci. USA* **85**: 6488-6492. 1988.
3. Williams, W.V., Guy, H.R., Weiner, D.B., Rubin, D., and Greene, M.I. Structure of the neutralizing epitope of the reovirus type 3 hemagglutinin. *Vaccines* **88**: 25-28. 1988.
4. Cohen, J.C., Williams, W.V., Weiner, D.B., and Greene, M.I. Molecular aspects of ligand interaction with immune and somatic receptors. Insight from the reovirus system. *Chem. Immunol.* **46**: 126-156. 1989.
5. Weiner, D.B., Williams, W.V., Hoxie, J.A., Berzofsky, J.A., and Greene, M.I. Non-CD4 molecules on human cells important in HIV-1-cell interactions. *Vaccines* **89**: 115-120. 1989.
6. Williams, W.V., Weiner, D.B., and Greene, M.I. Development and use of anti-idiotypic anti-receptor antibodies to study the interaction of the mammalian reovirus type 3 with its cell surface receptor. *Meth. Enzymol.* **178**: 321-340. 1989.
7. Lavie, G., Valentine, F., Levin, B., Mazur, Y., Gallo, G., Lavie, D., Weiner, D.B., and Murelo, D. 1989. Studies of the mechanisms of action of two novel antiretroviral agents, hypericin and pseudohypericin. *Proc. Natl. Acad. Sci. USA* **86**: 5963-5967. 1989.

22. Williams, W.V., McCallus, D.E., and Weiner, D.B. . Recombinant single chain human antibodies to HIV-1 gp160. *Transgene*. 1, 1-20. 1992
23. Sato, A.I., Ugen, K.E., Williams, W.V., Perussia, B., Weiner, D.B., Identification of two non-CD4 molecules important for HIV-1 mediated syncytium formation. *Vaccines* 92. 223-228. 1992
24. Cotropia, J., Ugen, K.E., Lambert, D., Ljunggren-Broliden, K., Kliks, S., Hoxie, J., Weiner, D.B., Characterization of human monoclonal antibodies (HuMAb) to the HIV-1 Transmembrane (TM) gp41 protein. *Vaccines* 92. pp157-163. 1992
25. Chen, S., Chrusciel, A.R., Nakanishi, H., Raktabutr, A., Johnson, M.E., Sato, A., Weiner, D., Hoxie, J., Saragovi, H.U., Greene, M.I., Kahn, M. Design and Synthesis of a CD4 β -turn mimetic that inhibits HIV gp120 binding and infection of human lymphocytes. *Proceeding of the National Academy of Science*. V89: pp5872-5876. 1992.
26. Wang, B., Fang, Q., Williams, W.V., Weiner, D.B., Double-stranded DNA Sequencing by linear amplification with Taq Polymerase. *Biotechnics*. 13:527-530. 1992
27. Williams, W.V., Kieber-Emmons, T., Weiner, D.B., Rubin, D.H., Greene, M.I., Contact residues and predicted structure of the reovirus type 3-receptor interaction. *J of Biological Chem*. 266:14, 9241-9250. 1992
28. McCallus, D.E., Ugen K.E., Sato, A.I., Williams, W.V., Weiner, D.B, Construction of a recombinant bacterial human CD4 expression system producing a bioactive CD4 molecule. *Viral Immunology*. 5:163-172. 1992.
29. Osther, K., Wiik, A., Black, F., Skinhoj, P., Kellermann, G., Ugen, K., Williams, W., Weiner, D., PASSHIV-1 Treatment of Patients with HIV-1 Infection - A preliminary report of a phase 1 trial of hyperimmune porcine immunoglobulin to HIV-1. *AIDS* 6:1457-1464. 1992
30. Ugen, K.E., McCallus, D.E., Von Feldt, J., Williams, W.V., Greene, M.I., Weiner, D.B. Ocular tissue involvement in HIV infection: immunological and pathological aspects. *Immunological Research*. 11:141-153. 1992
31. Ugen, K.E., Goedert, J.J., Boyer, J., Refeli, Y., Frank, I., Williams, W.V., Willoughby, A., Landesman, S., Rubinstein, A., Kieber-Emmons, T., Berzofsky, J., Weiner, D.B., Vertical transmission of HIV infection: Maternal humoral immune responses to gp120 and gp41 peptides. *Vaccines* 92: 183-189. 1992.
32. Wang, B., Ugen, K., Dang, K., Hall, W, Srikantan, V., Williams, W.V., Weiner, D.B., Molecular cloning, expression and biological characterization of an HTLV-II envelope glycoprotein which induces lymphocyte fusion. *AIDS Research & Human Retrovirus*. 9:9,p849-859. 1993.
33. Bhat, S., Mettus, R.V., Reddy, E. P., Reddy, Ugen, K.E., Srikanthan, William, W. V., Weiner, D.B., The Galactosyl Ceramide/Sulfatide Receptor Binding Region of HIV-1 gp120 Maps to Amino Acids 206-275. *AIDS Res. and Human Retroviruses*, 9:2,175-181. 1993
34. Wang, B., Ugen, K.E., Srikantan, V., Agadjanyan, M.G., Dang, K., Sato, A.I., Refaeli, Y., Boyer, J., Williams, W.V., Weiner, D.B., Gene inoculation generates immune responses against HIV-1. *Proceedings National Academy of Science*. 90:9, 4156-4160. 1993.

35. Wang, B., Ugen, K.E., Srikantan, V., Agadjanyan, M.G., Dang, K., Sato, A.I., Refaeli, Y., Boyer, J., Williams, W.V., Weiner, D.B., Gene Immunization: A novel method for vaccine development against HIV. *Vaccines* 93. pp143-150. 1993.
36. Sato, A., Balamuth, F.B., Ugen, K.E., Williams, W.V., Weiner, D.B. Anti-CD7 antibodies block cell adhesion and inhibit HIV syncytium formation. *Vaccines* 93. p189-196. 1993
37. Levy, D.N., Weiner, D.B., HIV Regulatory gene function analysis in a Rhabdomyosarcoma cell line. *Vaccines* 93. p243-250. 1993
38. Levy, D.N., Fernandes, L.S., Williams, W.V., Weiner, D.B., Induction of cell differentiation by HIV-1: vpr is necessary and sufficient. *Cell*. 72, 541-550. 1993
39. Ugen, Kenneth, Refaeli, Y., Ziegner, U., Agadjanyan, M., Satre, M.A., Srikantan, Wang, B., Sato, A., Williams, W.V., Weiner, D.B., Generation of monoclonal antibodies against the amino terminus of gp120 which elicit antibody dependent cellular cytotoxicity. *Vaccines* 93: 215-221. 1993.
40. Ugen, K.E., Goedert, J.J., Weiner, D.B. Maternal Antibodies against HIV-1 Envelope Glycoprotein: Model to Evaluate Vertical Transmission/ Potential Vaccine Efficacy. *Archives of STD/ HIV Research* 7:223-228. 1993
41. Wang, B., Boyer, J., Srikantan, V., Coney, L., Carrano, R., Phan, C., Merva, M., Dang, K., Gilbert, L., Ugen, K.E., Williams, W.V., Weiner, D.B., DNA Inoculation Induces Neutralizing Immune Responses against HIV-1 in Mice and Non Human Primates. *DNA and Cell Biology*. 12:9, p799-804. 1993
42. Williams, W.V., Boyer, J.D., Merva, M., LiVolsi, V., Wilson, D., Wang, B., Weiner, D.B., Genetic Infection Induces Protective in vivo Immune Responses., *DNA and Cell Biology*. 2:8, 675-683. 1993
43. Agadjanyan, M.G., Ugen, K.E., Wang, Bin, Williams, W.V., Weiner, D.B., Identification of an 80kD Membrane Glycoprotein Important for HTLV-I and HTLV-II Syncytium Formation and Infection. *J. Virology*, 68:1 485-493. 1994.
44. Eaton, A.M., Ugen, K.E., Weiner, D.B., Wildes, T., Levy, J.A., An Anti-gp41 Human Monoclonal Antibody which Enhances HIV-1 Infection in the Absence of Complement. *AIDS Research and Human Retroviruses*. 10:13-18. 1994
45. Wang, B., Merva, M., Dang, K., Ugen, K.E., Boyer, J., Williams, W.V., Weiner, D.B., DNA Inoculation Induces Protective In Vivo Immune Responses Against Cellular Challenge with HIV-1 Antigen Expressing Cells., *AIDS and Human Retrovirus*. 10 :21-27. 1994.
46. Ugen, K.E., Galetta, S.M., VonFeldt, J.M., McCallus, D.E., Williams, W.V., Weiner, D.B., 1994. Ocular Manifestations of HIV-1 Infection. *The AIDS Reader*. V4-2: 66-71. 1994
47. Agadjanyan, M.G., Wang, B., Ugen, K.E., Villafana, T., Merva, M., Petrushina, I. Williams, W.V., Weiner, D.B. DNA Inoculation with an HTLV-1 Envelope DNA Construct Elicits Immune Responses in Rabbits. *Vaccines* 94. 47-53 1994.
48. Levy, D.N., Refaeli, Y., Weiner, D.B., Serum vpr Regulates Productive Infection and Latency of Human Immunodeficiency Virus Type 1 . *Proceedings of the National Academy of Sciences*. v91,23, 10873-10877, 1994

49. Ugen, K.E., Von Feldt, J., Weiner, D.B., Ziegner, U., 1994 Diagnosis and Prediction of pediatric HIV-1 infection and AIDS: current status. *Journal of Clinical Laboratory Analysis*. 8: 309-314. 1994.
50. Sato, A.I., Balamuth, F.B., Ugen, K.E., Williams, W.V., Weiner, D.B., Identification of CD7 Glycoprotein as an Accessory Molecule in HIV-1-Mediated Syncytium Formation and Cell free Infection. *Journal of Immunology* 152:5143-5152. 1994.
51. Srikantan, V., Wang, B., Satre, M.A., Ugen, K.E., Dang, K., Scales, F., Godillot, A., Williams, W.V., Weiner, D.B., Cloning and Biological Characterization of Human Single Chain FV Fragments that Mediate Neutralization of HIV-1. *AIDS* 8,1525-1532. 1994.
52. Coney, L., Wang, B., Boyer, J., Ugen, K.E., McCallus, D., Srikantan, V., Agadjanyan, M., Patchuk, C., Merva, M., Newman, M. Williams, W.V., Weiner, D.B., Facilitated DNA Inoculation Induces Anti-HIV Immunity In Vivo. *Vaccines*. V12, 16: 1545-1550. 1994 .
53. Ugen, K.E., Srikantan, V., Wang, B., Goedert, H., Ziegner, U., Agadjanyan, M.G., Boyer, D.B., Cotropia, J.P., Williams, W.V., Weiner, D.B., Vertical Transmission of Human Retroviral Infections: Immunological Parameters. *ARCH STD/HIV RES* v8 pp285-292. 1994
54. Levy, D.N. Refaeli, Y., Weiner, D.B., Extracellular Vpr Protein Increases Cellular Permissiveness to HIV Replication and Reactivates Virus from Latency. *Journal of Virology*, p1243-1252. 1995.
55. Ugen, K.E., Ayyavoo, V., Wang, B., Agadjanyan, M., Boyer, J., Li, F., Kudchodakar, S., Lin, J., Merva, M., Williams, W.V., Weiner, D.B. DNA Inoculation as a Novel Vaccination Method Against Human Retroviruses with Rheumatic Disease Associations. *Immunological Research*. 13:154-162.
56. Pachuk, C.J., McCallus, D., Coney, L.R., Wang, B., Boyer, J., Weiner, D.B., Wakita, T., Tokushige, K., Moradpour, D., Wands, J.R., HCV-Core DN A Vaccine Constructs Induce an Anti-HCV Core Immune Response. In Press. *Vaccines*. 1995
57. Boyer, J.D., Wang, B., Ugen, K.E., Srikantan, V., Gilbert, L., Kudchodkar, S., Javidian, A., Dang, K., Merva, M., Newman, M., Carrano, R.A., Coney, L., Weiner, D.B. Induction of Humoral and Cellular Immune Response to HIV 1 in Cynomolgous Macaques and Chimpanzees by In Vivo DNA Inoculation. In Press, *Vaccines*. 1995
58. Wang, B., Boyer, J.D., Ugen, K.E. Srikantan, V., Agadjanyan, M.G., Williams, W., V., Newman, M., Coney, L., McCallus, D., Carrano, R., Weiner, D.B., Nucleic Acid-Based Immunization Against HIV-1: Induction of Protective in Vivo Immune Responses. In Press. *AIDS*. 1995
59. Wang, B., Merva, M. Williams, W.V., Weiner, D.B. Large Scale Preparation of Plasmid DNA by Microwave Lysis. In Press. *Biotechniques*. 1995
60. Wang B., Merva, M. Dang, K, Ugen, K.E., Williams, W.V., Weiner, D.B., Immunization by Direct DNA Inoculation Induces Rejection of Tumor Cell Challenge. In Press , *Human Gene Therapy*. 1995.
61. Wang, B., Boyer J., Srikantan, Ugen, K., Gilbert, L., Phan, C., Dang, K., Merva, M., Coney, L., Carrano, R., Newman, M., Agadjanyan, M., Williams, W.V., Weiner, D.B., Induction of Humoral and Cellular Immune Responses to the Human Immunodeficiency Type 1 Virus in Non Human Primates by in Vivo DNA Inoculation. In Press, *Virology*.

62. Weiner, D. B., Liu, M. A., New Vaccine Strategies. *Molecular Medicine Today*. pp. 108-109. 1995
63. Wang, B., Boyer, J.D., Ugen, K.E., Williams, W., V., Mollering, K., Coney, L., Carrano, R., and Weiner, D.B. DNA inoculation induces cross clade anti-HIV-1 immune responses. In Press, New York Academy of Sciences.
64. Refaelli, Y., Levy, D.N., Weiner, D.B., The glucocorticoid receptor type II complex is a target for the HIV-1 vpr gene product. *Proceedings of the National Academy of Sciences*. v92, 3621-3625, 1995

CHAPTERS

1. Williams, W.V., Weiner, D.B., Rubin, D.H., Guy, H.R., and Greene, M.I. 1988. Determination of the neutralizing/cell attachment epitope of reovirus type 3. *In: UCLA Symposia V 84, Technological Advances in Vaccine Development* (L. Lasky, ed.). Alan R. Liss, Inc.
2. Cohen, J.A., Williams, W.V., Weiner, D.B., and Greene, M.I. 1989. Antigenic and structural features of reoviruses. *In: Immunochemistry of Viruses 2*. Elsevier Publishers, Inc.
3. Williams, W.V., Weiner, D.B., and Greene, M.I. 1989. Molecular analysis of primary T cell involvement in the idiotype network utilizing immunoglobulin-derived peptides. *In: The Year in Immunology*, 6:p152-161.
4. Kokai, Y., Wada, T., Myers, J., Brown, V.I., Dobashi, K., Cohen, J.A., Haumro, J., Weiner, D., and Greene, M.I. 1989. The roles of the neu oncogene product in cell transformation and normal development. *In: Immune System and Cancer* (T. Hamaoka et al., eds.). Japan Sci. Soc. Press, Inc., pp. 45-57.
5. Weiner, D.B., Liu, J., Williams, W.V., and Greene, M.I. 1989. The role of cells and factors in immune suppression in animal models. *In: Immunophysiology: The Role of Cells and Cytokines in Immunity and Inflammation* (J.J. Oppenheim and E.M. Shevach, eds.). Oxford University Press, Chapter 22, pp. 386-404.
6. Williams, W.V., Weiner, D.B., Rubin, D.H., and Greene, M.I. 1989. Shared antigenic structure defines the neutralizing epitope of the reovirus type 3+. *In: Therapeutic Advances in Clinical Immunology: Immunology and Allergy Clinics of North America*, Vol. 8, pp. 169-172.
7. Gaulton, G.G. and Weiner, D.B. 1990. Anti-idiotypic approaches to viral infections. *In: The Idiotype Network in Disease* (J. Cerny and J. Hiernaux, eds.). Am. Society for Microbiology Publishers, Chapter 3, pp. 31-70.
8. Williams, W.V., Kieber-Emmons, T., Weiner, D.B., and Greene, M.I. 1990. Use of antibodies as molecular mimics to probe intermolecular interaction landscapes. *In: Molecular Evolution on Rugged Landscapes: Proteins, RNA and the Immune System*. Santa Fe Institute Press. pp53-63.
9. Levy, D. and Weiner, D.B., 1992. Synthetic peptide-based vaccines and antiviral agents, including HIV/AIDS as a model system. *In: Development and utilization of biologically active peptides*. (1992) Technomics Press Co.